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ABSTRACT

Evidence seems to suggest that children whose dialects are nonstandard generally produce compositions considered lower in quality than those produced by middle and upper-middle class children. The focus of this study, therefore, was to examine the relationship between children's knowledge of the structure of their language and their judged ability to use language effectively in composition. Eight classes of sixth grade students (representing Caucasian and black, and lower and middle class) were administered the Linguistic Ability Measurement Program (LAMP), since it provides an effective means of assessing pupils' knowledge of the operation of their language. Writing samples (a theme, a story, and a poem) were then collected under conditions as uniform and as controlled as was possible. Seven judges were asked to rate the composition samples through an application of objective criteria. An analysis of the data revealed that middle class pupils, Caucasian pupils, and girls scored significantly higher on all measures and that there was a greater correlation between test scores and composition ratings for middle class subjects than for lower class subjects. (HS)

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ELEMENTARY PUPILS' KNOWLEDGE OF THE STRUCTURE OF AMERICAN ENGLISH AND THE RELATIONSHIP OF SUCH KNOWLEDGE TO THE ABILITY TO USE LANGUAGE EFFECTIVELY IN COMPOSITION

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ABSTRACT

Much research leads to the conclusion that elementary school pupils know about their language structure functionally whether such language is "standard" or "non-standard." When asked to compose, however, children whose dialects are "non-standard" generally produce compositions considered lower in quality than those produced by middle and upper-middle class children.

Little evidence exists regarding the relationship between elementary pupils' measured understanding of language structure and their judged abilities in composition. There appears to be little evidence regarding differences in such a relationship when disadvantaged pupils are compared with middle or upper-middle class children.

The Linguistic Ability Measurement Program (Wisconsin Research and Development Center, 1970) was administered to four classes of sixth grade inner-city pupils and four classes of upper-middle class pupils. Scores on these tests were correlated with judges' ratings of pupils' compositions; a story, theme and poem, using criteria by Yamamoto.

Statistical analyses revealed significant differences between low SES and middle SES scores on the test; superiority of middle SES pupils on all composition tasks; superiority of Caucasians on all composition scores; test scores and composition ratings higher for females than males; and greater correlation between test scores and composition ratings for middle SES than for low SES pupils.

CHAPTER ONE

INTRODUCTION TO THE PROBLEM

Problem

The purpose of this research was to examine the relationships between elementary school childrens' demonstrated knowledge of linguistic structure as measured by responses to a written test, and their creative writing ability as demonstrated by three compositional efforts written in their classrooms. Specifically, the research attempted to determine if the scores achieved by "disadvantaged" children from lower social classes are more closely or less closely related to judges' ratings on compositions than are those of more "advantaged" middle class children.

Children's Knowledge of Language

Research by Berko (1958), Strickland (1962), Loban (1963), Brown and Bellugi (1966), Chomsky (1969), and others leads to the conclusion that elementary school pupils know a great deal about the structure of their language, in a functional manner. This is true regardless of the "standard" or "non-standard" labels applied to this language. When asked to compose, however, children whose dialects are considered non-standard generally produce essays, poems, and stories considered lower in quality than those produced in classrooms located in middle class and upper-middle class settings (Fagan, 1967).

There is to this point little evidence regarding the nature of the relationship between elementary pupils' measured abilities with respect to the structure of their language and their judged abilities to use this knowledge in composing. Further, there appears to be little empirical evidence regarding the differences in such a relationship when disadvantaged pupils are compared with those considered middle or upper-middle class. Such evidence should be of great benefit to classroom teachers, English Education specialists, and designers of curricula in the English language arts.

Strom (1960) offers the most complete review of the few relational studies which are available. Her report indicates three limitations of the materials she reviewed.

First, the majority of the studies have been done with children above sixth grade level. In this, as in other areas of research concern, it is reasonable to assume that while these studies with much older children are of tangential interest, findings in the target age group may yield substantially different results. Second, the majority of the studies have compared the results of teaching two contrasting types of grammars, and the consequent changes in students' compositional ability. In this study, however, the investigators tested not the results of extended teaching, but rather the present state of a child's linguistic information, apart from specific approaches, and the relationship which exists between that and his compositional ability. A third weakness of the studies reported upon by Strom is the almost complete lack of attention paid to socio-economic factors as variables to be controlled. The studies have identified factors other than social class as ones to be investigated, despite the fact that such researchers as Garvey and McFarlane (1970) have indicated that both race and social class may be significant in affecting results on linguistic performance tests.

In addition to Strom's report, there are a few other related studies. Sharples (1967), who worked with elementary subjects, Handerson (1967), also elementary, and Suggs (1961), who worked with secondary subjects, found significant relationships between grammatical knowledge and composition scores, though they did not investigate the importance of social class. On the contrary, Wardhaugh (1967), O'Donnel (1964), both of whom used high school subjects, and Woodfin (1968), who used elementary subjects, all concluded that relationships between grammatical knowledge and compositional skills are at best tangential.

Some investigators have explored the effect of social class on language. Calvert (1971) discovered that a high correlation existed between social class and syntactic complexity in children's writing. Such complexity undoubtedly influences judges' ratings of children's compositions. Mason (1968) also attempted to examine social class as a factor, but found that in his research it was not a significant variable affecting subjects' scores in creative writing, although verbal ability was significantly related. Bruininks (1970) reported that lower class children (Caucasian and Black) did significantly less well on written language tasks than did normative middle class groups with which they were compared.

Another factor which may affect results of studies in the area is that of race, as the discrepancies between standard English and non-standard Negro English are only now being carefully analyzed. The area is further complicated by the discrepancies between standard English and non-standard Caucasian English. Both Filvaroli (1970) and Wakefield (1969) found that urban Caucasian poor did not perform at a significantly higher level when oral usage was involved than did Black urban poor. Children's written compositions may or may not show similar deficits.

There is a further qualification to be made on the relevance of earlier examinations in this area. There is the chance, as Golub (1970) points out, that the research done previously has used tests which have measured only limited types of grammatical knowledge. School related achievement in standard English, rather than the more global linguistic knowledge which Loban (1963) and others have identified has typically been measured by these tests These "psycholinguistic abilities" as Golub described them, are possibly quite distinct from both the typical tests of language achievement, and also from the usual skills identified in verbal intelligence tests. If this is the case, the need for further experimentation is thus made even more apparent.

The picture, therefore, is unclear. If we can accept the hypothesis that some relationship does exist between these two aspects of language, linguistic knowledge and compositional skill, we are still left with the problem of the nature of the relationship. It was the purpose of this study to investigate this relationship, and particularly how this relationship differs when children of different social classes and races are considered.

The Linguistic Ability Measurement Program

The instrument chosen to assess the language knowledge of children was the Linguistic Ability Measurement Program (Frederick and others, Madison: The University of Wisconsin Research and Development Center, 1970). This instrument will hereafter be abbreviated as LAMP.

This test, a copy of which is included as Appendix 1, was widely piloted in Wisconsin before being released for general use. It requires children to evaluate and manipulate words and sentences as structural and transformational objects. The test includes items on phoneme equivalence, letter sequence, wordness, affixes, word

function, verb phrase expansion, pronoun referent, syntax, and embedding. All of this is accomplished by having children use their language with no reference made to conventional grammatical terminology.

The investigators chose the test for several linguistic reasons. One: being new, the test is more sound linguistically than are many commonly-used achievement tests which are based on traditional grammar approaches and less adequate descriptions of how the language functions. Two: as noted above, the test does not penalize children who are unfamiliar with linguistic terminology. In that way it can be said to measure language knowledge apart from what has been taught in the school's language programs. Three: it focuses on grammatical structure, not on fine points of usage, a common weakness of other currently available tests.

In addition to linguistic considerations, there were the usual administrative considerations. The test was available to the investigators, it could be administered conveniently by one person to a group of children in a short time, and it can be easily scored.

For the reasons listed above, it was decided that the LAMP represented an appropriate way to gather information needed about the children's knowledge of the structure of language.

Piloting of Procedures and Materials

Before beginning the research project, the investigators administered the LAMP test and used the composition motivations with a pilot group. Three classes of sixth grade pupils (N=112) were involved. These classes were randomly selected from all the sixth grades available in a school system enrolling several thousand children which were not otherwise involved in the study. The groups used were middle class, as identified by the principal and the classroom teachers. After the groups were chosen, the investigators met with the principal and cooperating teachers to explain the purposes of the study, the nature of the research design, and to answer questions about the LAMP.

The project directors administered the test after assuring the children it would not affect their classroom language arts grade. The cooperating teachers remained in the room to provide security for children who might have been uneasy in the situation.

A short time after administering the LAMP, the investigators returned to motivate the children to write three compositions: a theme, a story and a poem. (Complete descriptions of the motivation are included in Chapter Two.)

After the LAMP was administered and the writing samples were collected, the investigators trained a research assistant in the scoring procedures for the test, and supervised her as she scored the tests.

After the first administration of the LAMP by the researchers, the following observations were made:

1. the format in several sections was confusing.
2. the students tested finished in less time than was allotted in the directions.
3. the mean number of items missed by pupils in Class 1 was 46, the mean for Class 2 was 36, and the mean for Class 3 was 26.
4. the median number of items missed by pupils in Class 1 was 42 and 38,[1] for Class 2 it was 38, and for Class 3 it was 26.

The following lists summarize the mean number of items missed in each section, and the percent of items missed in each section.

Section	Class 1		Class 2		Class 3	
1	1.55	17.2%	1.90	21.1%	2.40	26.6%
2	6.17	38.6%	7.60	47.5%	6.11	38.1%
3	1.55	31.0%	1.71	34.0%	2.51	50.0%
4	3.00	60.0%	2.35	47.0%	2.94	58.8%
5	3.05	61.1%	2.76	55.5%	3.20	64.1%
6	3.50	43.7%	4.60	57.5%	5.05	63.1%
7	2.10	12.5%	2.81	17.5%	4.50	28.1%
8	3.60	36.0%	4.70	47.0%	4.30	43.0%
9	2.25	28.2%	2.70	33.8%	2.55	31.9%
10	4.65	51.6%	4.60	51.1%	4.61	51.2%
11	1.10	27.4%	1.30	32.5%	1.80	45.0%
12	1.75	43.7%	1.70	42.5%	2.80	70.0%
13	3.40	28.1%	4.60	38.3%	4.00	33.3%
14	3.50	20.6%	2.20	12.9%	3.00	17.6%

[1]An identical number of cases were above and below these scores. There was no score of 40.

Selection of Judges

A significant part of the study was the evaluation of children's compositions. In such a study it is crucial to involve judges of varying backgrounds and to train them in the use of criteria to be employed in evaluating the compositions. After investigating the possibilities, the project directors chose the following people to serve as judges:

1. a second grade teacher with over ten years of teaching experience in rural and suburban classrooms,
2. a sixth grade classroom teacher with two years of experience teaching culturally disadvantaged pupils,
3. a language arts curriculum coordinator for an upper-middle class university community, who has also taught language methods classes at the university,
4. an English Education doctoral candidate with experience teaching kindergarten inner city children and college classes in composition,
5. a graduate research assistant with two years of suburban teaching experience,
6. one of the project directors who taught suburban and university laboratory school children for ten years, and
7. the other project director, who taught in a suburban community for six years. (Both the project directors currently teach graduate and undergraduate language arts methods courses.)

Inter-Judge Reliability

In four meetings designed to promote inter-judge reliability, compositions by pupils involved in the piloting of the test were reviewed. The judges used a five point scale, based upon the items included in "Criteria for Evaluating Creative Writing," Appendix 2. Each composition, written by the same pupils who had taken the LAMP, was read by all judges. In only one case was there more than one point divergence in the judges' ratings. This composition was discussed, and it became apparent that the discrepancy was due to the application of a criterion not included in the list. Some judges found it easier to use, independently, various sections of the scale and thus arrive at a "mean" rating, while other judges preferred applying the scale as a whole. It seemed reasonable to

permit this flexibility, provided the judges applied all sections of the scale to each composition read. Because in the actual study the compositions were randomly assigned to the seven judges, it was deemed unnecessary to use statistical procedures for determining inter-judge reliability. The meetings described above were considered to be adequate for training procedures.

Procedural Changes Resulting from the Pilot Study

As a result of the pre-testing, adjustments were made in the time allotments for the test, certain directions were clarified, and judges were permitted to use the criteria (see Appendix 2) in a flexible way.

In addition, it was deemed important that administration of the LAMP be standardized. To that end, tape recordings of the instrument were made by a professional radio announcer, whose language was judged typical of "standard English" pronunciation in the geographic area in which the study was done.

Initial Hypotheses

Before beginning the study, the investigators formulated the following hypotheses regarding the student populations:

1. There will be a significant difference between the LAMP test scores of the pupils in the middle class groups (Experimental I group, Indianapolis and West Lafayette) and those in the lower class groups (Experimental II group, A and B, Indianapolis), favoring the pupils in Experimental I. If this hypothesis is supported, it can be assumed that pupils in Experimental I classes have demonstrated more understanding of the structure of their language, as measured by this instrument.

2. There will be a significant difference in the performance of the pupils in Experimental I group and Experimental II group, A and B, in all three composition situations. Again, these differences will favor pupils in the Experimental I classes and will indicate their superiority in situations calling for the written use of their language.

3. Within Experimental II groups, A and B (Indianapolis classes) both test scores and composition ratings will favor Subgroup A (Caucasian)

over Subgroup B (Black). That is, Subgroup A will perform at a higher level on both measures because their dialect is closer to standard English than is the dialect of Subgroup B.

4. It is further hypothesized that a comparison of the relationships between the judges' ratings and test scores for the Experimental I and Experimental II classes will reveal that the relationship will be closer for those pupils in the Experimental I classes. That is, for those more favored pupils, the relationship between knowledge of the structure of their language and their ability to use this knowledge effectively in writing situations will be closer than will be such a relationship for the pupils labeled "culturally disadvantaged."

These hypotheses were tested in eight elementary classrooms during the school year 1970-1971. Detailed procedures concerning the populations involved and the procedures for data gathering are described in Chapter Two.

CHAPTER TWO

THE EXPERIMENTAL DESIGN AND METHODOLOGICAL PROCEDURES

Population

To secure a population for this study, the researchers contacted appropriate school officials in two school districts in Indiana, who randomly assigned schools which met the population requirements of the research study. The investigators then contacted principals in these schools who randomly assigned specific classrooms of children to the study.

Six classes of sixth grade pupils in the elementary schools of Indianapolis, Indiana and two classes of sixth grade pupils in West Lafayette, Indiana, constituted the population of the study.[2] The Indianapolis population was composed of two subgroups: Subgroup A (Caucasian) and Subgroup B (Black). The total pupil N was 252. In short, there were four middle class and four lower class groups; four Caucasian and four Black groups.

Procedures for Language Knowledge Testing

Prior to administering the Linguistic Ability Measurement Program (LAMP), the researchers met with the principals and classroom teachers involved to explain the nature and purposes of the test, and the general research design.

All pupils in the population took the LAMP under controlled conditions. The test was administered to all students during October of 1971. The project directors and the classroom teachers were

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[2]An analysis of school records revealed that these pupils can be classified in two distinct groups, middle class and lower class, based upon the description of groups included in the Minnesota Scale of Paternal Occupations (Institute of Child Development, University of Minnesota, n.d.) There is precedent for the use of this scale in language research (Loban, 1963).

present throughout the testing. As the children in the sample were unfamiliar with the investigators, it was thought wise to ask the classroom teachers to remain in the rooms, to provide security for more timid children.

The directors distributed the tests and made necessary brief introductory remarks, including comments to assure students that results of the test would in no way affect their grades in school. Directions for the various subsections of the test, and portions of it which might have presented reading problems for pupils had been recorded on audio tape, as mentioned in the previous section, in order to control testing conditions as much as possible. One forty-five minute session, with a five minute "stretch" break, was adequate for completing the testing. After the testing, children were allowed to ask questions about the nature and purpose of the testing. Response from both teachers and pupils was, in general, quite positive. No one appeared to object to the test, or to the time devoted to its administration.

The tests were all scored by one person, a graduate assistant especially trained for this task by the project directors. Where correct answers were in doubt, information obtained in correspondence with the Research and Development Center were used in scoring the tests. Scores were recorded in terms of total items (140) minus number missed. The resultant scores on the LAMP served the function of providing evidence regarding pupils' understanding of the structure of American English.

Procedures for Obtaining Composition Samples

Prior to collecting writing samples, the investigators met with the classroom teachers involved in the study to elicit their ideas about the composition tasks. As a result of these meetings, the procedures were modified slightly.

Evidence of pupils' skill in using their language was provided through the assignment of three types of compositions. The children were motivated by the two investigators to do three pieces of writing: a theme, a story, and a poem. The writing was done in the children's classrooms, with the teacher present to provide an element of security if such was needed. The investigators directed the writing, to ensure standardization of directions, and writing conditions, including procedures for giving help with mechanical problems. Each investigator was randomly assigned some of each type of group

included in the study (eg.: Caucasian, disadvantaged, etc.), and gathered all the writing samples from these groups. All writing was done at spaced intervals during one class day, and each classroom group wrote the three compositions in the same order.

Motivation for the theme, written first, was based on an excerpt from Charlotte's Web, by E. B. White (New York: Harper and Row, 1952). The advantage of starting with this motivation was two-fold: 1) it was assumed that expository or descriptive writing would be easiest for children to do, and 2) the fact that most children in the study were familiar with the story would make the first writing task pleasant. The section in Chapter Three (page 13, included here as Appendix 3) on barn smells was read to the children. They were encouraged to react to it, and to contribute ideas about smells and words to describe them. After reminding the children that the barn smells were the smells of Charlotte's and Wilbur's home (two characters in the story), the investigators asked the children to write a theme related to smells in their home, at their school, or enroute between the two.

The story writing motivation, second in the series, was the reading of an excerpt from The Bat Poet, by Randall Jarrell (New York: The Macmillan Co., 1963). This is included here as Appendix 4. Unlike the story by White, none of the children had been exposed to this story prior to its use by the investigators. Nonetheless, the idea of a bat being the main character in a story was quite appealing to children; the majority of them responded very positively. The description of the bat and one of his adventures was read. Following this, the children were encouraged to discuss with the investigators their impressions and ideas about the bat. This led into a writing period in which the children created an adventure for the bat. For the inner city children, specific attention was devoted to a discussion of how the bat's adventures would be different if he made a visit to the city. Though the majority of the book is in prose, some of the bat's adventures are recounted in poetry, which formed a valuable bridge to the third and last composition assignment, a poem.

The poetry writing assignment was scheduled last of the three, because of the investigators' intuitive judgment that this would be the most difficult for the children. The directors' experience supported this judgment. The motivation for the poem writing was both

aural and visual. The children were asked if they knew what poetry was, and were encouraged to contribute to a general discussion which ensued about the characteristics of poetry. The investigators helped children draw up a list of characteristics of poetry on the chalkboard. Six poems which varied in style but which were about the topic "animals," were read to the children. Some poems were humorous and not all had an easily understood rhyme scheme or meter. The children were encouraged to react to the poems and discuss them. Following the discussion of poetry, six slides of children's art work, all paintings of animals, were shown to the children. The pupils were encouraged to discuss these. Following this experience, the children wrote poetry about whatever topic they chose. Obviously the motivation for this session directed children toward writing animal poetry, but it was emphasized that poetry about anything was acceptable.

During all the writing sessions the investigators were present to answer any questions, and to help with spelling, punctuation, and other mechanical concerns. The writing was completed during the time the investigators were present to ensure maximum stability and uniformity of writing conditions. All gathering of writing samples was done during November, 1971.

Judges' Ratings

After they were gathered, the compositions were coded and typed. In addition, spelling and usage irregularities which might have interfered with communication were eliminated, to prevent such mechanical factors from affecting the judges' evaluation of the quality of the compositions. Decisions regarding the usage errors were made jointly by the project directors to ensure uniformity of standards. Unless communication was viewed as a problem, the children's language was left intact.

Following this procedure, the compositions were distributed on a random basis to the participating judges, none of whon knew the source of a particular composition. No judge was expected to read all compositions, but each piece of writing was read by three judges. Each pupil's composition was assigned a composite score, derived from the mean of the judges' ratings of each composition. Thus four scores were available; the mean rating of the theme, the story and the poem, as well as the composite scores derived from the means of all three of the product evaluations.

Summary

During the school year 1970-1971, eight sixth grade classes participated in a project designed to determine the relationship between children's scores on a linguistic knowledge test, the LAMP, and their scores on three types of compositions--a theme, a story, and a poem. These data were gathered under the most carefully controlled conditions possible. Scoring of the LAMP test was done by a trained research assistant. Judges considered well qualified to apply objective criteria to children's compositions were trained and after training evaluated the compositions randomly assigned to them. Reports of the analyses of these data are included in Chapter Three.

CHAPTER THREE

RESULTS AND CONCLUSIONS

The major objective of this study has been stated as follows (Pg. 1, Ch. One):

> The purpose of this research was to examine the relationships between elementary school children's demonstrated knowledge of linguistic structure as measured by responses to a written test and their creative writing ability as demonstrated by three compositional efforts written in their classrooms. Specifically, the research attempted to determine if the scores achieved by "disadvantaged" children from the lower social classes are more closely or less closely related to judges' ratings on compositions than are those of more "advantaged" middle class children.

The Linguistic Ability Measurement Program (LAMP) was administered to eight classes of pupils in Indianapolis and West Lafayette, Indiana. These classes represented different racial and socio-economic backgrounds. These same pupils, under carefully controlled conditions, wrote a theme, a story, and a poem, which were evaluated by seven judges using criteria developed by Yamamoto (1963).

Hypotheses of the Study

The specific hypotheses of this research were as follows:

> 1. There will be a significant difference between the LAMP test scores of the pupils in the middle class groups (Experimental I group, Indianapolis and West Lafayette) and those in the lower class groups (Experimental II group, A and B, Indianapolis), favoring the pupils in Experimental I. If this hypothesis is supported, it can be assumed that pupils in Experimental I classes have demonstrated more understanding of the structure of their language, as measured by this instrument.

2. There will be a significant difference in the performance of the pupils in Experimental I group and Experimental II group, A and B, in all three composition situations. Again, these differences will favor pupils in the Experimental I classes and will indicate their superiority in situations calling for the written use of their language.

3. Within Experimental II groups, A and B (Indianapolis classes) both test scores and composition ratings will favor Subgroup A (Caucasian) over Subgroup B (Black). That is, Subgroup A will perform at a higher level on both measures because their dialect is closer to standard English than is the dialect of Subgroup B.

4. It is further hypothesized that a comparison of the relationships between the judges' ratings and test scores for the Experimental I and Experimental II classes will reveal that the relationship will be closer for those pupils in the Experimental I classes. That is, for those more favored pupils, the relationship between knowledge of the structure of their language and their ability to use this knowledge effectively in writing situations will be closer than will be such a relationship for the pupils labeled "culturally disadvantaged."

First Analyses

In order to test the significance of the relationships between factors previously mentioned, a computer program, BMD2D[3] was utilized. This program calculates simple correlations between any two variables.[4] The data from this analysis are reported in Table 1.

From a review of the correlational data presented in Table 1, the following conclusions appear warranted:

1. There is negligible relationship between factors of race and sex, and SES and sex. There

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[3]W. J. Dixon (Ed.), BMD Biomedical Computer Programs. Los Angeles: University of California, 1965, p. 49.

[4]W. L. Hays, Statistics. New York: Holt, Rinehart and Winston, 1963, pp. 505-506.

Table 1

Correlation Matrix - All Factors

	Sex	SES	Race	LAMP	Poem	Theme	Story
SES	-.0129						
Race	-.0192	.1372					
LAMP	.1717	-.2483	-.3183				
Poem	.1089	-.1971	-.1927	.4044*			
Theme	.1588	-.1563	-.3385	.4513*	.3297		
Story	.1896	-.3071	-.2724	.4926*	.3553	.4299	
Total	.2044	-.2936	-.3507	.5664*	.7359**	.7133**	.7866**

*Indicates moderate significance.

**Indicates high or very high significance (using Garrett's descriptors).

Terminology used to describe the correlations is that suggested in Henry F. Garrett, Elementary Statistics. New York: David McKay Co., Inc., 1962, p. 100.

is low negative correlation between SES and LAMP scores. There is a stronger negative relationship between Total Writing Score and race. Apparently, race and SES have little relationship to pupils' knowledge of the structure of their language (LAMP) or their ability to use language in compositions.

2. The high positive correlation between scores in the three writing samples and the Total Writing Scores suggest that pupils' performance was consistent on the three writing tasks.

3. The correlation between scores on the LAMP and Total Writing Scores suggests a substantial positive relationship between these measures.

One obvious problem with this program is presented by the limited number of degrees of freedom available. This particular program is not sophisticated enough to make necessary statistical adjustments for the limitations in sex, race, and social class (one d.f. each). Analyses of Variance and Regression Analyses were more appropriate.

Primarily because the researchers felt the data provided through the analyses just described were unsatisfying and revealed less complete information than was desired, two additional analyses were computed, BMD 03R and BMD 03D.[5]

Second Analysis

Results of the Regression Analyses (BMD 03R) will be reported first, in Tables 2 through 7.

Results

As noted, the analyses reported in Tables 2 through 7 were Multiple Regression Analyses.[6] The purpose of these analyses was to determine the relative

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[5]Dixon, op. cit., p. 258, p. 60.

[6]See J. B. Winer. Statistical Principles in Experimental Design (Second Edition). New York: McGraw-Hill, 1971, pp. 69-85. Or, Hays, op. cit., pp. 566-577.

Table 2

Prediction of Total Composition Scores - Middle SES

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	23.66667	41.57191	.00699	.00234	2.99058	.26862	2214.32730	.41805
Poem	7.02500	2.89149	1.02147	.03103	32.91659	.95081	1695.91680	.32018
Theme	8.20833	2.68170	.82136	.03362	24.42821	.91565	485.47227	.09165
Story	9.08333	2.99463	1.04507	.02981	35.06119	.95627	823.99845	.15557
Total	24.40000	6.67165						

Table 3

Prediction of Total Composition Scores - Low SES

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	3.13636	36.46786	-.00144	.00243	-.59130	-.05240	805.45553	.22976
Poem	6.03030	2.24098	.99073	.03620	27.37151	.92469	749.63861	.21384
Theme	7.41667	2.37043	.97445	.03773	25.82704	.91655	1254.56700	.35787
Story	7.31818	2.48451	1.03033	.03707	27.79749	.92674	597.75222	.17051
Total	20.84091	5.17308						

Table 4

Prediction of Total Composition Scores - Caucasian Subjects

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	31.00000	45.82807	.00517	.00297	1.73748	.18955	1717.86679	.42465
Poem	7.18605	3.01959	1.01182	.04316	23.44544	.93358	1100.04350	.27192
Theme	8.98837	2.91646	.81451	.03998	20.37195	.91471	521.38138	.12888
Story	9.24419	3.03678	1.07380	.04122	26.05149	.94519	630.81623	.15593
Total	25.53488	6.89876						

Table 5

Prediction of Total Composition Scores - Black Subjects

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	3.54217	33.49728	-.00129	.00208	-.62002	-.04881	938.92862	.21442
Poem	6.15060	2.30840	.98989	.02772	35.70504	.94227	1354.60162	.30934
Theme	7.17470	2.09174	.98508	.03337	29.51809	.91872	1111.52353	.25383
Story	7.59639	2.62154	1.01728	.02693	37.77685	.94796	875.15921	.19986
Total	20.98193	5.15161						

Table 6

Prediction of Total Composition Scores - Females

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	19.92248	38.86306	-.00177	.00243	-.72712	-.06516	1381.27526	.27513
Poem	6.75969	2.75220	.98927	.03150	31.40656	.94251	1781.26319	.35481
Theme	8.18605	2.57320	.98333	.03740	26.29049	.92081	1046.86755	.20852
Story	8.68992	2.80568	1.01504	.03381	30.02355	.93759	712.91216	.14200
Total	23.71318	6.26273						

Table 7

Prediction of Total Composition Scores - Males

	Mean	Standard Deviation	Regress. Coeff.	Std. Error of Regress. Coeff.	Computed T Value	Partial Corr. Coeff.	Sum of Sq. Added	Proportion of Var. Cumulative
LAMP	5.56098	40.49492	.00509	.00240	2.12073	.19161	1853.45590	.44006
Poem	6.23577	2.44306	1.01621	.03589	28.31839	.93366	794.10689	.18854
Theme	7.38211	2.46789	.83363	.03306	25.21554	.91840	678.18307	.16102
Story	7.60163	2.84789	1.07340	.03056	35.12401	.95535	808.76744	.19202
Total	21.30081	5.87567						

importance of scores on the LAMP test to judges' ratings on poetry, theme, and story writing for the prediction of total scores on the three production measures combined. The total sample of Ss was broken down into middle and low SES subsamples, and separate Regression Analyses were computed. The results (see Column 8, Table 2) indicated that the LAMP scores accounted for approximately 42% of the variation of the total production scores for the middle SES group, but for only 23% of the variations of the total production scores for the low SES group of subjects (see Table 3). Both analyses resulted in significant predictions, but it must be remembered that because part scores were used to predict total scores, significantly high relationships should be expected. The important fact is that the amount of predictability of total production scores by LAMP scores varies considerably between the two SES groups. A possible interpretation which may be placed on these results is that in the classroom, rated quality of compositions is more closely tied to grammatical knowledge (LAMP scores) in the middle SES group than in the low SES group.

Similar results were obtained when the subject breakdown was by Caucasians and Blacks (Tables 4 and 5); also by males and females (Tables 6 and 7). The LAMP scores accounted for 44% of the total variation for males, but only 28% for females. By the same token, the LAMP scores accounted for 21% of the variation for Blacks and 42% for Caucasian subjects.

These results demonstrate great variation in the importance of the LAMP as a predictor of composition ability among different groups of subjects.

Additional correlational data, analyzed for socioeconomic status difference, were obtained from the Regression Analysis. In Table 8-A these data are reported for the low SES group, and in Table 8-B for the middle class group.

These data demonstrate the differential relationships between the LAMP and the composition scores for pupils from both SES groups.

It will be recalled that prior efforts to secure similar correlation data provided insufficient results due to the inability of the program used to make adequate adjustments for the limited degrees of freedom.

Table 8-A

Correlation Matrix, LAMP Scores and Judges' Ratings for Low SES Group

	LAMP	POEM	THEME	STORY
POEM	.26145			
THEME	.33378	.17603		
STORY	.41048*	.15834	.48356*	
TOTAL	.39267	.61612*	.72093**	.72705**

* = Substantial

** = High or Very High

Table 8-B

Correlation Matrix, LAMP Scores and Judges' Ratings for Middle SES Group

	LAMP	POEM	THEME	STORY
POEM	.46329*			
THEME	.51531*	.41222*		
STORY	.48556*	.43065*	.34418	
TOTAL	.64657*	.80100**	.69655*	.79453**

* = Substantial

** = High or Very High

By performing separate analyses for middle and low SES groups, more accurate correlations were obtained between the LAMP scores and other measures. The data presented in Table 8 A and B, demonstrate that much higher relationships exist between the LAMP results and judges' ratings for composition in middle SES groups than is true for the low SES groups.

Third Analysis

Data were further analyzed using an Analysis of Variance.[7] In Tables 9 through 13, these data are presented.

Table 9

ANOVA of LAMP Scores

Source	M.S.	d.f.	F-Ratio	Probability Level	Variance Accounted For
Total	1639.867	251			
Between	14637.864	7			
A Sex	13731.437	1	10.8380	.0015	.0302
B SES	29751.018	1	23.4820	.0000	.0690
C Race	32006.239	1	25.2620	.0000	.0745
AB	4145.357	1	3.2719	.0681	.0070
AC	842.256	1	.6648	.5789	.0000
BC	17970.426	1	14.1837	.0004	.0405
ABC	4018.318	1	3.1716	.0724	.0067
Within	1266.973	244			

[7] Winer, op. cit., pp. 445-463.

Table 10

ANOVA of Poem Scores

Source	M.S.	d.f.	F-Ratio	Prob.	Var.
Total	6.993	251			
Between	50.635	7			
A Sex	8.805	1	1.5336	.2142	.0017
B SES	116.376	1	20.2698	.0001	.0628
C Race	38.791	1	6.7565	.0097	.0188
AB	1.203	1	.2095	.6525	.0000
AC	6.456	1	1.1244	.2900	.0004
BC	182.525	1	31.7913	.0000	.1004
ABC	.291	1	.0507	.8168	.0000
Within	5.741	244			

Table 11

ANOVA of Theme Scores

Source	M.S.	d.f.	F-Ratio	Prob.	Var.
Total	6.405	251			
Between	36.965	7			
A Sex	35.062	1	6.3422	.0120	.0183
B SES	30.299	1	5.4807	.0189	.0154
C Race	156.715	1	28.3477	.0000	.0937
AB	.260	1	.0471	.8230	.0000
AC	4.813	1	.8706	.6459	.0000
BC	18.177	1	3.2880	.0674	.0078
ABC	13.427	1	2.4288	.1163	.0049
Within	5.528	244			

Table 12

ANOVA of Story Scores

Source	M.S.	d.f.	F-Ratio	Prob.	Var.
Total	8.049	251			
Between	49.644	7			
A Sex	70.177	1	10.2361	.0020	.0312
B SES	148.634	1	21.6801	.0001	.0699
C Race	107.564	1	15.6895	.0003	.0497
AB	14.215	1	2.0734	.1473	.0036
AC	5.421	1	.7907	.6216	.0000
BC	1.496	1	.2182	.6461	.0000
ABC	.004	1	.0006	.9790	.0000
Within	6.856	244			

Table 13

ANOVA of Total Composition Scores

Source	M.S.	d.f.	F-Ratio	Prob.	Var.
Total	37.848	251			
Between	345.598	7			
A Sex	283.727	1	9.7772	.0024	.0267
B SES	835.519	1	28.7918	.0000	.0846
C Race	872.593	1	30.0694	.0000	.0885
AB	11.292	1	.3891	.5406	.0000
AC	.615	1	.0212	.8792	.0000
BC	407.790	1	14.0523	.0005	.0397
ABC	7.649	1	.2636	.6145	.0000
Within	29.019	244			

On the following tables, 14 through 18, mean scores for LAMP, poem, theme, story and total composition scores are provided. In Appendix 5, p. 55, means and standard deviations of the smallest cells of the Analyses of Variance for the five scores are reported.

Table 14

Means for Main Effect of Sex, SES and Race for LAMP Scores

	Male	Female
	1	2
Sex	7.9886	23.7261
	Middle	Low
	1	2
SES	27.4397	4.2749
	Caucasian	Black
	1	2
Race	27.8707	3.8440

Table 15

Means for Main Effect of Sex, SES and Race for Poem Scores

	Male	Female
	1	2
Sex	6.3387	6.7372
	Middle	Low
	1	2
SES	7.2623	5.8135
	Caucasian	Black
	1	2
Race	6.9562	6.1197

Table 16

Means for Main Effect of Sex, SES and Race for Theme Scores

	Male	Female
	1	2
Sex	7.6267	8.4220
	Middle	Low
	1	2
SES	8.3940	7.6547
	Caucasian	Black
	1	2
Race	8.8650	7.1837

Table 17

Means for Main Effects of Sex, SES and Race for Story Scores

	Male	Female
	1	2
Sex	7.8319	8.9569
	Middle	Low
	1	2
SES	9.2131	7.5757
	Caucasian	Black
	1	2
Race	9.0908	7.6980

Table 18

Means for Main Effect of Sex, SES and Race for Total Composition Scores

	Male 1	Female 2
Sex	21.9060	24.1682
	Middle 1	Low 2
SES	24.9781	21.0961
	Caucasian 1	Black 2
Race	25.0207	21.0535

Results

On each of the five dependent variables, significant main effects of SES and Race were obtained. Caucasians outscored Blacks and middle SES outscored low SES. On all but the poem analysis, significant sex differences were obtained. Females outscored males. On all but the story and theme analyses, significant SES by race interactions were obtained, due to the disproportionately high performance of middle SES Caucasians, as determined by the Newman-Keuls post hoc tests.[8] These results may be statistically significant, but one must still consider the amount of variance accounted for by these findings.

An additional statistic, known as the degree of association,[9] may be interpreted as the "real" or practical importance of the variables in question. For example, for LAMP scores, sex accounted for 3% of the variance, race for 6%, and SES for 7%. For poem ratings, however, sex accounted for less than 1%, race for 6% but SES

[8] Winer, op. cit., pp. 185-196.

[9] Hays, op. cit., pp. 323-332.

only for 2%. In summary, if we combine both hypotheses, we are able to say that Blacks do worse than Caucasians, lower SES worse than middle SES, but we lack evidence concerning the reasons for such performance.

Summary

1. In Hypothesis 1, it was stated that significant differences would be found between low SES and middle SES pupils on LAMP test scores. Analysis of Variance data as reported in Tables 9 and 14 give adequate support for this hypothesis.

2. Data supporting Hypothesis 2, regarding the superiority of middle SES pupils on all composition tasks are presented on page 24, Tables 10 through 13 and 15 through 18.

3. Data reported in all Analysis of Variance tables and Tables of Means (Tables 9 through 18) give support to Hypothesis 3 regarding the superior performance of Caucasians on all measures.

4. Tables 2, 3, 8-A and B, report data regarding the relationship between the judges' ratings and LAMP scores for the low and middle SES group pupils. The greater number of substantial (.40 or above) correlations between LAMP scores and composition ratings for the middle SES pupils in contrast to the lower SES pupils lends strong support to Hypothesis 4, predicting this differential relationship. In addition, the regression analyses demonstrated that the role of LAMP test scores in predicting total composition scores is much greater for the middle SES pupils than it is for the low SES pupils.

Thus, a careful review of all the data analyzed lends strong support to all four of the hypotheses of this study. There are significant differences in the performances of pupils from different socioeconomic and racial backgrounds, and these differences, not surprisingly, favor the pupils from middle socioeconomic levels and the Caucasian pupils. Scores and ratings favored the females, significantly so on all measures except the poem.

CHAPTER FOUR

SUMMARY, CONCLUSIONS AND INTERPRETATION OF FINDINGS

It was the purpose of this study to examine the relationship between childrens' knowledge of the structure of their language and their judged ability to use language effectively in composition. Currently available evidence regarding this relationship is contradictory in nature and has been based upon data gathered from the use of somewhat outdated instruments. The development of the Linguistic Ability Measurement Program (LAMP) by Golub and his associates at the University of Wisconsin's Research and Development Center provided a more effective means of assessing pupils' knowledge of the operation of their language, and the directors of this study selected this instrument on the basis of its scope, its comprehensive nature and the ease with which it could be administered and scored. Command of oral language and competence in using it, while of primary significance and interest, is difficult to measure and sampling techniques become cumbersome and difficult to control. It was determined, therefore, to concentrate on written language, composition, and three types of evidence were gathered--a poem, a theme and a story.

For very commendable and obvious reasons, there is, currently, great concern for the linguistic abilities of so called "culturally-disadvantaged" pupils. Evidence gathered to date suggests that such pupils do not understand the functioning of their language in its standard forms, at least, and furthermore, do not use Standard English as effectively in speech or writing, as their more fortunate peers. The focus of this study, therefore, was not only on assessing the degree of relationship between knowledge and rated production of language, but also on the differences in this relationship among pupils of different racial and socioeconomic backgrounds. Another assumed advantage of the LAMP was its apparent lack of bias toward standard English. It was hoped that on such an instrument pupils' scores would more fairly represent childrens' understanding of their language and would not reflect their lack of command of standard English.

Eight classes of pupils enrolled in sixth grade during the school year 1971-1972 were selected as the population for this study. These classes represented two races, Black and Caucasian, and two socioeconomic levels, lower and middle class. In all cases school administrators, teachers and pupils were cooperative and helpful. There was, apparently, no antagonism toward the researchers or the areas of their concern.

The directors of the study administered the instrument, on a pilot basis, to three classes of pupils not in the sample referred to above. The directions for the test were tape recorded in order to standardize administration. Furthermore, all composition samples were collected, under conditions as uniform and controlled as was possible, by the directors of the research. All tests were scored by two graduate assistants who checked each other's work. Seven judges rated the composition samples, three reading and evaluating each product without knowledge of the rating of the other two judges. Since writing samples were randomly assigned, without regard for the pupils' sex, race, or socioeconomic background, it was concluded that the training sessions held, and the evaluative scale provided the judges, were adequate controls over inter-judge reliability.

Limitations

Some of the limitations of this research can be inferred from the summary of the data-gathering procedures presented above. They should be explicitly stated, however.

1. The instrument selected for measuring childrens' knowledge of the structure of their language, the LAMP, may not, in fact, be as comprehensive or a free of cultural bias as assumed. It almost certainly meets more of the criteria suggested above than the existing instruments with which the directors of the study are familiar.

2. Although serious efforts were made to control the conditions under which writing samples were collected, it is more than likely that childrens' moods, the general classroom climates and most important, the prior writing experiences of pupils, varied to a significant degree and that this variation undoubtedly affected the products. The effects of the sex and race of the examiners (one male, one female, both Caucasian) on pupils' attitudes toward the assignment cannot be measured.

3. The scale used (Yamomato, 1963) is quite flexible, and this was considered by the study directors to be a strength. However, the fact that this scale allows for individual judges' interpretation may cause some readers to consider this a limitation. In fact, one judge freely admitted repulsion at the frequent mention of hair grease in some of the theme samples written by Black pupils. This brings into focus what might be considered another limitation. Although composition samples were not identified by sex, race or socioeconomic background, some internal evidence regarding source could not be disguised. This factor may, and probably is, reflected in the judges ratings.

4. There were obvious advantages, in terms of efficiency and coverage, in collecting the samples in the same day. However the researchers might justifiably be criticized for demanding so much writing in such a short period of time.

5. The results reported in Chapter Three, and summarized in this chapter, represent the status of the relationship between linguistic knowledge and composition skill for the pupils surveyed. No claims for wide, generalizability can or should be made. Nevertheless, the writers believe that the samples were representative, and thus, it is likely that similar findings would result if larger populations were studied. The data reported here rather accurately represents the differences in knowledge of language structure and composition skill for pupils differing in the three variables studied: sex, race, and socioeconomic background.

Results

As noted in Chapter Two, data were analyzed using several procedures, primarily Regression Analysis and Analysis of Variance. All hypotheses were given strong positive support. Middle class pupils, Caucasian pupils and girls scored significantly higher on all measures. The predicted differing relationship between LAMP scores and ratings for pupils of different socioeconomic backgrounds occurred. LAMP scores and judges' ratings were closer for middle class than for lower class pupils. Clearly, in terms of the design and instrumentation of this research, evidence suggesting the superiority of Caucasian middle class, pupils and, on most measures, female subjects, received additional support.

Implications of the Results

The following are suggested as educational implications of the study:

1. The need remains for linguistic knowledge tests which can be proved to be culture-free. The researchers feel that the LAMP is closer to being culture free than any other test of which they are aware. Despite this, there remains the possibility, suggested by the performance of the students in this population, that the test instrument does discriminate against some groups of students.

2. A research project of this nature needs to be carried out with a larger group of subjects. While the researchers consider the groups included in the study to be representative of a more general population of sixth graders, another study with more and/or larger groups would help to confirm the findings.

3. The differential results on the test of grammar knowledge suggests the need to investigate teaching practices in the schools in the area of grammar. Are middle class children receiving more instruction in grammar? Their superior performance on the test might suggest this. Much has been written recently about what the nature of grammar teaching in the schools ought to be. To the writers' knowledge, no status study of what the nature of this teaching currently is has been recently undertaken.

4. There is continuing need for an easily administered, valid and reliable scale for use in evaluating creative writing. The choice of such scales is limited. While the one chosen was deemed the most appropriate for this study, there is no doubt that further work needs to be done in this area.

5. A replication of the study, using examiners of the same race as the children being examined, would be of interest. Similarly, children may sometimes perform at higher levels when examined by someone of their own sex. Research designed to explore the effect of researcher sex and race is needed.

6. Another methodological question is raised by the scores on the poetry writing task, which were the lowest scores in the composition ratings. This evidence confirmed the researchers' intuitive judgment

regarding pupils' negative responses to poetry. What is being done in the teaching of poetry today, and how does this relate to children's writing of poetry? Here is an area which needs research, in order to improve the quality of teaching poetry. Clearly, negative attitudes toward writing poetry existed among the population studied, and these attitudes had a negative impact on the amount and quality of the poetry written.

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APPENDIX 1

APPENDIX 1

LINGUISTIC ABILITY MEASUREMENT PROGRAM[1]

The date today is _____, 19__. My name is _____. I am __ years old, and I was born in the month of _____. I am in grade __ at _____ School. My teacher's name is _____. My father works at (give his occupation; if he is not living with you, put an X)_____. My mother is (give her occupation, or housewife, or X if she is not living with you)_____.

I am ___black
___white
___Indian or part Indian
___Mexican
___Puerto Rican

I am ___male
___female

GENERAL DIRECTIONS

This is a test of your language ability. It will show what kinds of things you can do with words and sentences. The directions for each part of the test have been tape recorded. The voice in the recording will read the directions and some of the questions so you will know what to do in each part of the test. For each problem or question your job will be to choose the one answer you think best. Answer as many of the items as you can, and always guess if you are not sure. If you have a question during the test, raise your hand and someone will help you. Please make your marks readable and use the test booklet for writing and making notes. Work carefully, have a good time, and follow along as we begin.

---

[1]This product was developed by the Wisconsin Research and Development Center for Cognitive Learning pursuant to a contract with the United States Office of Education, Department of Health, Education, and Welfare, Center C-03/Contract OE 5-10-154. The endorsement or non-endorsement of this product is not a stipulation of the aforesaid contract. Copyright is claimed until April 1971 by the University of Wisconsin. Thereafter all materials covered by this copyright are in the public domain.

In each set mark with an X the sentence you think is better.

1. __The car of the man is in the lot.
   __The man's car is in the lot.

2. __The bottom of the pail is rusty.
   __The pail's bottom is rusty.

3. __The lady that left was old.
   __The lady who left was old.

4. __He wanted to really go.
   __He really wanted to go.

5. __Hide now quickly under the porch.
   __Now hide quickly under the porch.

6. __We'll meet here briefly tomorrow.
   __We'll meet tomorrow here briefly.

7. __Briefly tomorrow we'll meet here.
   __We'll meet briefly here tomorrow.

8. __A short, bald, wrinkled, ten-year-old witch ran by.
   __A ten-year-old, bald, short, wrinkled witch ran by.

9. __The coals are very hot which are glowing.
   __The very hot coals are glowing.

The list below has groups of letters that are not "real" English words. But some of the letter groups seem more like words than others. You are to mark each item with a 1, 2, 3, or 4, where each number means the following:

1. Could easily be an English word.
2. Like English but not as close as 1.
3. Pretty far from "real" English.
4. Could never by an English word.

The first four are done for you. Do each set of four below, as in the example.

A. 4 ctuwzl
B. 1 binnel
C. 2 edapio
D. 3 hyrsth

I. A. ____ zorch
B. ____ odaepm
C. ____ pitka
D. ____ wurfk

II. A. ____ hiromi
B. ____ sllorj
C. ____ grige
D. ____ traoo

III. A. ____ quprx
B. ____ renfros
C. ____ xetaph
D. ____ snarky

IV. A. ____ bosked
B. ____ apatua
C. ____ benlum
D. ____ kjaere

In this sentence, "The Problem is difficult but it can be solved," the word it refers to problem. For each item below choose the word that the underlined word refers to. Circle the letter of the word you think is correct.

1. A man can get a cold and be very sick unless he treats it promptly and rests.

   a. man
   b. cold
   c. sick
   d. he
   e. rests

2. The poet compared the sea with some wild animal of the jungle that was waiting to pounce on its victim.

   a. poet
   b. sea
   c. animal
   d. jungle
   e. victim

3. In our country when towns were being named at a great rate, a board was set up which tried to organize the naming.

   a. country
   b. towns
   c. rate
   d. board
   e. naming

4. The notebook on her desk covered up my drawing which was very messy.

   a. notebook
   b. desk
   c. covered up
   d. drawing
   e. messy

5. Bernie was a 12-year-old who had a friend and a dream. He wanted a jeep.

   a. Bernie
   b. 12-year-old
   c. who
   d. friend
   e. jeep

One can think of luv as a disguised spelling of love. Or thnkfl might be a disguised way of writing thankful. Below are two lists of such disguised words. Find the word in List I that means about the same as the first word in List II. Put the number of that word in the blank. Do this for each word in List II. The first one has been done for you. The word outdoors means about the same as number two, outside. One word will be left over in List I. Do these items now.

List I

1. kwikle
2. owtcighed
3. tellafown
4. knobodie
5. wridelz
6. addvenshur
7. krecher

List II

2. owtdorz
__ aksion
__ joeckx
__ aynnamull
__ phassed
__ nohwon

Do the same for Lists III and IV. Pick the word in List III that means about the same as a word in List IV and write the correct number in the blank. Two words will be left over in List III.

List III	List IV
1. pephl	
2. dowt	__simbl
3. rgumnt	__phyt
4. mblm	__unsrtn
5. sidr	__nsekt
6. egr	__xsytd
7. betl	

In these next problems, you are given a sentence. Your job is to make a new sentence based on the given sentence. The new sentence should mean the same thing as the given sentence and should begin with the words shown. Look at this example.

John was given a ride by Pete. Pete _____.

1. g a r
2. g J a r
3. w g a r b J
4. r w J

The sentence based on the given sentence and meaning the same thing is "Pete gave John a ride." The correct answer is 2, g J a r, since these are the first letters of the words in the new sentence. For each problem think what the new sentence would be and then circle the number of the answer that lists the letters. Try this second example before starting:

Nobody is at home. There _____.

1. n i a h
2. i n t a h
3. i n a h
4. a h i n h

If you answered 3, for There (is nobody at home) you are correct. Do these next problems in the same way. Think the new sentence and circle the number of the correct answer.

A. Not until after did Mary help me. Mary _____.

1. h m a l
2. d n h m a l
3. d n h m u a l
4. h m o a l n u

B. I quit because of him. It is _____.

1. b o h t i q
2. b o h i i q
3. q b o h
4. h t q b o i

C. The law makes them guilty. They are made _____.

1. g t l m t
2. g
3. g b t l
4. g m t l

D. Many hills rose in the distance. In the _____.

1. d r m h
2. d t h r
3. d w m h
4. h m w d

E. John himself must win this race. This _____.

1. J h m r
2. r J m w t r
3. r J m w
4. r J m w h

F. The old chief was leader of all the tribes.
Leader _____.

1. w t o c
2. i t c o a t t
3. o t o c w a t t
4. o a t t w t o c

G. A truck hit that light pole.
That light pole _____.

1. f d o t t
2. w h b a t
3. a a t w h
4. h a t

H. Someone threw his cap into a pond.
His cap _____.

1. w t i a p b s
2. f i a p
3. w t i a p b h
4. g t i a p

The word unmindful has three parts, un + mind + ful. The first part, un, is called a prefix; mind is called the root word; and ful is a suffix. Below is a list of prefixes, root words, and suffixes. You are to put a P before the prefixes, RW before the root words, and S before the suffixes.

____1. un
____2. ly
____3. ed
____4. read
____5. ment
____6. trans
____7. care
____8. turn
____9. ence
___10. dis
___11. ation
___12. ness
___13. mis
___14. ish
___15. ities
___16. il

You are given pairs of sentences which have some parts underlined. Decide which of the choices in the second sentence are used in the same way as the underlined part in the first sentence. For example, look at these two sentences:

Bob threw his gloves behind the chair.
One of the lions roared for his supper.
a b c d

Which of the underlined parts are used in the same way as threw? The correct choice is c because both roared and threw name the kind of action in the sentences. Write a, b, c, or d for each item.

He saw the sign but didn't stop.

1. __

You may (a) do the dishes (b) or (c) take out (d) the garbage.

A motorcycle was parked in the alley.

2. __

Leaves (a) blew (b) against (c) the (d) curb.

The elephants melted silently into the trees.

3. __

The fierce (a) storm (b) was (c) moving fast (d).

Since you are home, let's eat early.

4. __

I'll (a) do it (b) when (c) the show is over (d).

A rather skinny dog stared at the door.

5. __

Sally looked (a) very (b) pretty (c) last (d) night.

A squad car blocked the alley.

6. __

This (a) piece of bread (b) tastes (c) stale (d).

The party, in general, was very boring.

7. __

Fortunately (a), Stanley (b) wasn't (c) invited (d).

The bus will be leaving twenty minutes late.

8. __

The field trip (a) should have (b) given (c) you ideas (d).

The girl in that picture is my sister.

9. __

Two boys played ball on the playground.
a b c d

Milwaukee is a large city.

10. __

A brown box sat on the stairs.
a b c d

For each sentence below, you are to decide which word (or words) could be left out without changing the meaning of the sentence. For example, in the sentence, "I know that you are honest." that could be left out, leaving a sentence which means the same thing, "I know you are honest." For each item write a, b, c, or d in the blank to show which underlined part could be left out. If you think no underlined parts can be left out without changing the meaning, write N in the blank.

__1. I hope that you are a friend.
a b c d

__2. Mom makes good potatoes and good gravy.
a b c d

__3. Either Ed or Bill went to the store.
a b c d

__4. The principal said that they were not to blame.
a b c d

__5. The note which was hidden in the bushes was safe.
a b c d

__6. I would like for you to finish the job.
a b c d

__7. No one is as heavy as Ernie is heavy.
a b c d

__8. Jay slammed the door and Jay jumped off the porch.
a b c d

In the problems below you are given a word followed by four other words. A part of each word is underlined. From the set of choices, select the one whose underlined part sounds most like the underlined part of the first word. Circle the letter of the correct choice. Look at the example:

bite	a. sit	b. view	c. fight	d. little

The part that sounds most like the i in bite is the igh sound in fight. So c is the correct answer in the example.

1. jug	a. finger	b. danger	c. charge	d. shut
2. design	a. sign	b. zero	c. desk	d. voice
3. enough	a. stuff	b. through	c. shove	d. half
4. anger	a. angle	b. hanger	c. angel	d. danger
5. dressed	a. wanted	b. bed	c. mixed	d. ask
6. exist	a. ax	b. edges	c. Texas	d. eggs
7. house	a. even	b. help	c. new	d. know
8. lodge	a. gem	b. gum	c. chair	d. ship
9. heads	a. bus	b. glass	c. trees	d. seed

List I contains a set of nonsense questions. List II has the answers to the questions. Before each question in List I write the letter of the answer for that question. One sentence in List II will be left over.

List I

__1. What did the klib hinkle?

__2. How was a turfee klibbed?

__3. Where did the klib hinkle?

__4. Who klibbed the turfee?

List II

A. A turfee was klibbed menitely.

B. The klib hinkled a snafrat.

C. The turfee was klibbed by a sneel.

D. The klib hinkled in a boofram.

E. A turfee hinkled the klib's torp.

Do the same for Lists III and IV. One sentence in List IV will be left over.

List III

__5. What did klib duhink?

__6. When did klib plo?

__7. How was plo skibbed?

__8. Who klibbed the duhink?

List IV

F. Duhinks nac the ploes to klib.

G. Plo was klibbed very duhink.

H. Klib duhank the plo.

I. The duhink was klibben to the plo by nac.

J. Klib ploded duhinkly.

For each problem on this page, circle the letter of the answer which you think is the best way to complete the sentence. For example, if you were given the sentence, "Somebody _____ to do that yesterday." and these choices:

a. didn't
b. will have
c. tried
d. else wants

you would circle the letter c because it is the best way to complete the sentence, "Somebody tried to do that yesterday."

1. There is _____.
   a. my desk, please
   b. some boys and girls
   c. more than ten people
   d. something to do

2. ____ strikes the car and runs.
   a. Boys
   b. The boy
   c. I
   d. We

3. John came ____ two points of winning.
   a. from
   b. by
   c. within
   d. almost

4. ____ nor were any tiny ones
   a. There were big ones
   b. None of the big ones were there
   c. I have no little
   d. Unless it is so

5. He seemed _____.
   a. saddened, and he spoke sadness
   b. sadly, and he spoke sadder
   c. sad, and he sopke sadly
   d. sadder, and he spoke sad

6. The boy has two ____.
   a. biffles, and biffles tomorrow
   b. biffle, and biffled tomorrow
   c. biffling, and will biffling tomorrow.
   d. biffIness, and biffler tomorrow

7. Except for pancakes, _____.

   a. how about some ice cream?
   b. we had apples.
   c. when they are good and hot.
   d. I don't like breakfast.

8. ____ barely five, my father sent me to school that fall.

   a. Although
   b. Inspite of being
   c. Although I was
   d. Since

For these problems circle the letter of the answer you think completes the sentence best.

9. Since food will make you grow, it is possible that short people are _____.

   a. not grown up yet
   b. not fed properly
   c. living in China
   d. spending their money on things besides food

10. If you are late, _____.

   a. try to be earlier
   b. I must begin on time
   c. it has happened to us, too
   d. another person will get your place

11. In baseball, the time between pitches should be shorter because ____ would like to see the game speeded up.

   a. it
   b. they
   c. who
   d. one

12. Mice probably like to eat corn since ____.

   a. they are often in cornfields
   b. the beginning of time
   c. I once saw one eating some
   d. it tastes very good

In the sentence, "We <u>went</u> to the game," the word <u>went</u> fits correctly. But you would not say "We <u>could</u> to the game." In the list below, mark the items that fit in the sentence with a Y (for yes) and the ones that don't fit with an N (for no).

We ____ to the game.

__ 1. be
__ 2. are to go
__ 3. were willing
__ 4. could
__ 5. gone
__ 6. going
__ 7. rides
__ 8. rushed
__ 9. had wanted to go regularly
__10. ought to have been going
__11. have rode
__12. did not
__13. have been
__14. could go
__15. of course, were going
__16. are to be going
__17. become

Answer each question by circling the number of the one best answer.

A. How would you spell door using the spellings for the d sound in butter, and the oor sound in more?

1. te
2. utoe
3. bre
4. ttore

B. How would you spell slave using the sl sound in pencil, the a sound in eight, and the v sound in of?

1. ceif
2. cleife
3. cileighf
4. cilehf
5. cliev

C. How would you spell fish using the spellings for the f sound in rough, the i sound in women, and the sh sound in nation?

1. ougoat
2. ghoti
3. hit
4. ughoation
5. gwot

D. How would you spell fish using the spellings for the f sound in phone, the i sound in mountain, and the sh sound in anxious?

1. phaixi
2. hounx
3. painiou
4. pontanx

For the sets of letters in problems 1, 2, and 3, circle the one letter in each set that you think is used most often in writing.

1. a e i o u
2. t r l d w
3. g j x z q

For the sets of letters in problems 4, 5, and 6, circle the one letter in each set that you think is used least often in writing.

4. s r b h n
5. m c f v y
6. a i o u y

For problem 7, circle the one word that you think appears most often in writing.

7. and the for be I

For problem 8, circle the one word that you think appears least often in writing.

8. of at on to we

APPENDIX 2

APPENDIX 2

CRITERIA FOR EVALUATING CREATIVE WRITING*

Each "above average" rating will be assigned a weight of 5; average, 3; below average, 1. You may feel free to use even numbers in between, if you wish.

1. Originality (Uniqueness of the idea)
   A. Above average - composition is different from others, in terms of the convincing use of setting, topic, use of quotes, details and/or ending.
   B. Average - composition is similar in idea, but sentences are longer, supporting ideas are present.
   C. Below average - composition is the same as others, and is written more simply.

2. Richness (Number of ideas present)
   A. Above average - many and varied ideas.
   B. Average - one idea, enriched by an elaboration of some type.
   C. Below average - one idea, without expansion or elaboration.

3. Organization (Composition consistent in its entirely - ideas relevant to each other and to the story whole).
   A. Above average - composition flows smoothly from beginning to end.
   B. Average - composition lacks complete coherence, but there is a clear connection between most of its parts.
   C. Below average - lack of consistency in organization.

---

*Adapted from a list included in Kaoru Yamamoto Experimental Scoring Manuals for Minnesota Tests of Creative Writing and Thinking. Kent, Ohio: Bureau of Educational Research, 1964, pp. 104-137.

APPENDIX 3

APPENDIX 3

The following excerpt from Charlotte's Web[1] was read to pupils as a stimulus to their expository or theme writing.

> The barn was very large. It was very old. It smelled of hay and it smelled of manure. It smelled of the perspiration of tired horses and the wonderful sweet breath of patient cows. It often had a sort of peaceful smell--as though nothing bad could happen ever again in the world. It smelled of grain and of harness dressing and of axle grease and of rubber boots and of new rope. And whenever the cat was given a fish-head to eat, the barn would smell of fish. But mostly it smelled of hay, for there was always hay in the great loft up overhead. And there was always hay being pitched down to the cows and the horses and the sheep.

---

[1] E. B. White, Charlotte's Web. New York: Harper and Row, 1952, p. 13.

APPENDIX 4

APPENDIX 4

The following excerpts from The Bat Poet[1] were read to pupils prior to their story writing assignment.

> Once upon a time there was a bat--a little light brown bat, the color of coffee with cream in it. He looked like a furry mouse with wings. When I'd go in and out my front door, in the daytime, I'd look up over my head and see him hanging upside down from the roof of the porch. He and others hung there in a bunch, all snuggled together with their wings folded, fast asleep. Sometimes one of them would wake up for a minute and get in a more comfortable position, and then the others would wriggle around in their sleep until they'd got more comfortable too; when they all moved it looked as if a fur wave went over them. At night they'd fly up and down, and catch insects and eat them; on a rainy night, though, they'd stay snuggled together just as though it were still day. If you pointed a flashlight at them you'd see them screw up their faces to keep the light out of their eyes.

> A shadow is floating through the moonlight.
> Its wings don't make a sound.
> Its claws are long, its beak is bright.
> Its eyes try all the corners of the night.
>
> It calls and calls: all the air swells and heaves
> And washes up and down like water.
> The ear that listens to the owl believes
> in death. The bat beneath the eaves,
>
> The mouse beside the stone are still as death--
> The owl's air washes them like water.
> The owl goes back and forth inside the night,
> and the night holds its breath.

---

[1]Randall Jarrell, The Bat Poet. New York: The Macmillan Co., 1963, pp. 1-3, 17.

APPENDIX 5

APPENDIX 5

Table A

Mean and Standard Deviation for LAMP Scores[1]

Cell	N	Mean	S.D.
A1 B1 C1	23	47.2174	45.6817
A1 B1 C2	35	.5714	31.0316
A1 B2 C1	18	-11.1111	35.7259
A1 B2 C2	47	- 4.7234	32.6228
A2 B1 C1	26	49.6923	40.6731
A2 B1 C2	36	12.2778	30.2113
A2 B2 C1	19	25.6842	34.9302
A2 B2 C2	48	7.2500	37.0661

Table B

Mean and Standard Deviation for Poem Scores

Cell	N	Mean	S.D.
A1 B1 C1	23	8.5217	2.7613
A1 B1 C2	35	5.4571	2.0486
A1 B2 C1	18	5.3333	2.2229
A1 B2 C2	47	6.0426	1.9556
A2 B1 C1	26	8.6538	3.0717
A2 B1 C2	36	6.4167	2.5565
A2 B2 C1	19	5.3158	1.8575
A2 B2 C2	48	6.5625	2.5425

Table C

Mean and Standard Deviation for Theme Scores

Cell	N	Mean	S.D.
A1 B1 C1	23	8.6957	2.9762
A1 B1 C2	35	7.2286	2.0592
A1 B2 C1	18	7.9444	2.9400
A1 B2 C2	47	6.6383	2.0046
A2 B1 C1	26	10.3462	2.6221
A2 B1 C2	36	7.3056	2.1223
A2 B2 C1	19	8.4737	2.7359
A2 B2 C2	48	7.5625	2.1329

Table D

Mean and Standard Deviation for Story Scores

Cell	N	Mean	S.D.
A1 B1 C1	23	9.5217	3.2873
A1 B1 C2	35	8.2857	2.7714
A1 B2 C1	18	7.2222	2.4866
A1 B2 C2	47	6.2979	2.0947
A2 B1 C1	26	10.4615	2.7602
A2 B1 C2	36	8.5833	2.8921
A2 B2 C1	19	9.1579	2.7541
A2 B2 C2	48	7.6250	2.2936

Table E

Mean and Standard Deviation for
Total Composition Scores

Cell	N	Mean	S.D.
A1 B1 C1	23	27.1739	6.4923
A1 B1 C2	35	20.9714	4.7557
A1 B2 C1	18	20.5000	5.8837
A1 B2 C2	47	18.9787	4.3363
A2 B1 C1	26	29.4615	6.3134
A2 B1 C2	36	22.3056	5.8350
A2 B2 C1	19	22.9474	5.2012
A2 B2 C2	48	21.9583	5.1693

[1]For all tables, level A1 refers to males, level A2 to females, B1 to middle class SES subjects, B2 to lower class SES subjects, C1 to Caucasian subjects and C2 to Black subjects.